

PROPOSAL GUIDE
Version 1.4
June 2, 2003
Bureau of Reclamation
Science and Technology Program
R&D³ Proposal and Performance Contract (S&T ProPC) System

I. GENERAL INFORMATION

A. Title:

Choose a title that succinctly captures the essence of your proposal and resonates with Reclamation's mission of managing and delivering project water and power to our water users. This should be a single sentence/statement.

B. What Is the Primary Research Question You Are Proposing to Pursue with this Proposal?

State your working hypothesis. The hypothesis should provide key insight, beyond what the title conveys, into the primary objective of your proposal as it relates to and benefits Reclamation's mission of managing and delivering Reclamation project waters. If you have a menu of unrelated questions, your proposal is probably too broad and should be separated into separate proposals that are structured to address a specific research question. Separable hypotheses/research questions should be separated into distinct proposals. The combination of the title and research question should concisely and clearly communicate what you are proposing to do and why your proposal is valuable and relevant to *Reclamation managers, and to the water users, water managers, and other stakeholders served by Reclamation project waters. The research question statement should be no longer than 1 to 4 sentences.*

C. R&D³ Output Area(s): _____

List the one best output area from the S&T Program research roadmap that is the best fit for your proposal based on your research question and how your research results will be used. See <http://www.usbr.gov/research/program/roadmap.htm> for a tour through the S&T Program roadmap that summarizes the objectives of each output area and the research needs and goals of each output area. If your idea is not consistent with these needs and goals, structure your proposal to fulfill the intent of the R&D³ Output Area title. We are always open to ideas that fulfill the general intent of the title. Innovative proposals or ideas enable us to update and evolve the 5-year R&D³ vision and goals.

If you feel your proposal reaches across more than one output area, list only the appropriate focus area (IR, WD, WS, or DS). If your proposal reaches across more than one focus area, your proposal is probably too broad. Proposals that involve multiple disciplines to effectively address interfacing issues associated with the research question are desirable to help ensure successful implementation. However, the interfacing issues should not be viewed as a reason for the proposal to reside in multiple output areas or focus areas.

The S&T Program research roadmap will lead you through our R&D³ Output Areas and show how they are linked to Reclamation resource management strategies and Reclamation's end outcomes of water and power

deliveries. The research vision (*state-of-practice, 5-year needs, value and benefit, and goals*) for each R&D³ Output Area was prepared by lead researchers in the TSC with input from other technical and resource management advisors. These vision statements were the basis on which the S&T Program steering team prioritized the R&D³ Output Areas. These statements can be viewed by clicking on the links to the right of each output area description. <http://www.usbr.gov/research/program/roadmap.htm>)

You can also review the list of R&D³ Output Champions listed for each output area by clicking on the link to the right of each output area description. *You should contact the R&D³ Output Champions, or the technical mentor for each research focus area, for any technical questions you have, to discuss your ideas, to coordinate preparing joint proposals, and to ensure the capability you are proposing to develop is not already available.* The output champions are also a source to the latest and emerging technical and scientific capabilities in their area.

Note: Safety of Dams issues - The Science and Technology Program does not focus on Safety of Dams issues only because Reclamation's Dam Safety Office currently handles Safety of Dams research proposals. Safety of Dams related research focuses on improving safety of dams decisions by:

- a. Reducing the uncertainty associated with dam behavior and dam failure potential under normal, seismic, and extreme flood events.*
- b. Reducing the uncertainty associated with loading events that could cause dam failure.*
- c. Finding new, cost effective methods to reduce the risks of dam failure or the consequences of dam failure.*

D. Proposed Start and Completion Years:

Proposed Start Year

Select the fiscal year that you intend to submit this proposal for funding. You can also use this field to enter draft proposals into the system in advance of the year that you intend to submit the proposal for funding. Simply select the appropriate out-year and leave the proposal in draft status until you want to submit it. You can only submit proposals for a new start for the year corresponding to the annual fiscal year call for proposals memo.

New starts include new ideas, projects that received scoping funding under a prior year and are now applying for full project funding, and stand-alone efforts that may contribute to (or be related to) ongoing S&T Program efforts and are a new component. If this new start is the result of a prior year S&T Program scoping effort, you should note this in Section I.F .

Special note for S&T projects that started in FY2003 - Please select FY2003 as the start date and reenter your proposal from last year. The FY2004 on-line proposal form incorporates many improvements that were identified or requested during our initial year of implementing our new S&T Business Practices in FY2003. We envision little to no variations in the form in the future. It is important that you reenter your proposal so that it becomes part of our proposal database. This is also your chance to reword text from the proposal you submitted last year and more clearly explain your project and work plan. You can also simply “cut and paste” information from your FY2003 proposal directly into the online proposal form. Sections I.G, II, III, and X are the key revisions in the proposal form from last year. To ensure proposals are concise, we have stated

maximum lengths for each section and have also limited the size of most fields where indicated on the form. If your “cut and paste” is too big, please edit your text to drive home the main points in the space allotted. If you write too much, you will lose reviewer attention.

Section X of the proposal form is the annual progress report for your project. Once a multi-year proposal is funded, it will be evaluated each year for the merit of continuation of funding. Accomplishing prior year tasks will be a key consideration. Commitment of outyear funding, other than current year, is also subject to appropriations. If your proposal is funded and is a multi-year effort, section X needs to be filled out each year and your proposal resubmitted as part of the annual call for proposals to request project continuation and the funds that you will need for the upcoming fiscal year. Section X will not be available for online entry until about the end of April 2003. You can start entering your proposals now up through section IX. You can also prepare the information that will be needed for Section X. Look at the Proposal Form Worksheet in PDF format that is posted on our website to see the information that will be required to enter in Section X. Section X will be the main element to complete each year to resubmit your project and be considered for renewal. For FY2004, your resubmitted proposal will be reviewed for past performance, and technical and mission relevancy along with all new proposals submitted. With the more complete reviews initiated for FY2004, this will ensure all proposals within our data base have the same level of review. For FY2005 and beyond, resubmitted proposals will only be reviewed for performance and mission relevancy. Projects that received only scoping funds in the past, must apply as a new start based on the results of their efforts.

Proposed Completion Year

Select the fiscal year that you plan to complete your project if it is funded. You may have to wait until you complete Sections II and III before you can answer this.

Once you actually complete your project, you are required to complete Section X as a close-out progress report. You should complete Section X and resubmit your original proposal when you complete your project, but submission should be no later than the end of the fiscal year in which you complete your project. If your project is stopped for whatever reason before completion, fill out section X as a status report at the time of close-out. ***(Special note for ongoing work that is completed in FY03....only complete proposal sections I.A., I.B, I.C I.D. and Section X. You do not need to reenter your FY 2003 proposal).***

E. Purpose of Proposal

Check one:

Conducting research, development, demonstration, or deployment work: Check this box if the scope of work includes one or more of these work activities.

It's important that we use consistent terminology when discussing research and its end results. We also want to emphasize which research elements, or stages, are under the purview of S&T Program and which are not. To that end, please consider the following definitions:

Basic Research *(not a typical role for S&T Program)* - Pursuing the unknown to create new knowledge and capability in order to advance our basic understanding of physical, biological, chemical or other natural processes without a specific application in mind. The S&T program does not typically fund basic research unless it is unique and necessary to Reclamation's mission and therefore would not get done if

Reclamation did not pursue it. Basic water related research is typically conducted by USGS, NOAA, NSF, universities, etc. We work with these research providers to incorporate the findings from their basic research into our applied research and development for water resources management.

Applied Research (*typical role for S&T Program*) - Pursuing the unknown associated with a specific problem that is relevant to Reclamation's mission and authorities for managing and delivering Reclamation project water and power. The applied research outputs should create new knowledge and capability in the form of solutions that more effectively address the specific problem.

Development (*typical role for S&T Program*) - Molding existing technology and capability for a specific or new application that is relevant to Reclamation's mission and authorities for managing and delivering Reclamation project water and power.

Demonstration (*typical support or facilitation role for S&T Program*) - Demonstrating or proving that new or existing technologies reliably and effectively address a specific or custom application. Usually resource managers or private industry partners provide significant co-funding and other resources for demonstrations.

Deployment (*at times, S&T Program plays a direct support role*) - Confident initial usage of new technology to help solve or prevent specific problems. Capital investment in new, proven technologies for deployment purposes is the responsibility of resource managers. However, researchers may need to provide assistance in the early stages of deployment to ensure confident and appropriate usage, verify performance, and ensure that technical transfer is complete.

Application/Implementation (*not a direct role for the S&T Program*). Application of proven or standard technologies and capabilities and any associated technical services, maintenance, site specific refinements of existing tools and models, and update activities. Data acquisition and maintenance as well as model updates will be supported only when integral to developing or testing a hypothesis, or facilitating the development and use of new scientific tools and solutions. Application, implementation and maintenance are the sole financial responsibility of resource managers and end-users and is not an authorized use of S&T Program funds.

Who's responsible for application and implementation of research outputs? Researchers share this responsibility with resource managers and end-users. See Section I.H for more information and to describe your outreach and technology transfer approaches.

Scoping or Formulation: Generally between \$5,000 and \$10,000; not to exceed \$15,000. Duration should be less than one year. Scoping proposals only require that sections I.F, I.G, III, and IV be completed. Other sections can be completed at the discretion of the proposer. Check this box if the only purpose of the proposal is to build strong partnerships, perform literature searches, establish state-of practice/needs with peers and stakeholders, or other background work that will be used to flesh out research merit and submit a more thorough, focused proposal next year. Scoping proposals should be the exception and not the rule. They should be used when a problem is complex and when more than reasonable amount of effort is required to build strong partnerships or flesh out research merit. We do not pay to develop proposals. It is expected that those interested in submitting proposals to the S&T Program are actively framing research proposals, building partnerships with technical peers and stakeholders, etc. as a collateral professional duty associated with technical coordination and delivering technical services to Reclamation water users, water managers, facility managers and other stakeholders. Therefore,

F. State the Problem and How Will Your Research Outputs Contribute to Achieving Reclamation's Mission, and The S&T Program Mission and Performance Measures?

Describe the problem and how your research outputs (products) will be used to achieve Reclamation's mission outcomes of stretching/enhancing western water and power supplies, increasing their reliability, and saving money for Reclamation stakeholders. It is important that you quantify potential benefits as best as you can (e.g amount of water that can be saved, efficiency gained, cost savings, etc). See section II for more discussion on your research outputs. *Section F should be no longer than one page.*

Intellectual property protection alert: If you click yes, reviewers of your proposal will be briefed on confidentially requirements and asked to sign a non-disclosure agreement. We will also be selective on the selection of text in your proposal that we make available to the public. Guidance will be available soon on what might be considered intellectual property and if it should be protected from disclosure. It is important that potentially patentable innovations be carefully protected from inadvertent or premature disclosure. We will post the guidance here when it is available. Check back later. During the interim, if you need assistance, call our Technical Transfer Facilitator, Michael Messaros, at 303-445-3125. You should limit entering information in your proposal, that might be considered sensitive from an intellectual property standpoint, to only Section I.F.

G. Demonstrate that Reclamation is Best Positioned to Both Conduct the Research and Implement the Results.

Discuss why Reclamation should fund, conduct or contribute to this research. Is the work inherently a government responsibility? Is the work inherently a Reclamation responsibility? Does being involved bring a benefit to Reclamation and our stakeholders that would not otherwise exist? This is especially important when other agencies, institutions, or the private sector are also involved in the field (e.g., modeling, fisheries, infrastructure, water quality) or have the lead responsibility in research, implementing solutions, and/or managing the resource issue. *This should be less than one half page.*

H. Technology and Knowledge Transfer Plan

Describe your plan for reaching out to resource/facility managers, other end-users, and the private sector to expedite broad acceptance, deployment, and use of your outputs (new solutions and new capability). Outreach activities, and involving water users and water managers throughout the research process are typically the strongest methods for S&T Program researchers and program management to ensure that research outputs are implemented and used. If research outputs do not get used, it is considered the fault of the program and researchers for not having effective outreach to better understand end-user needs and to keep end-users better informed about technologies and tools that are available to help them meet their water management challenges.

Private sector partnerships enabled by the Technology Transfer Act of 1986 are strongly encouraged when a research output may have commercial potential. The S&T Program seeks every opportunity to use Cooperative Research and Development Agreements (CRADA's) authorized by the Technology Transfer Act to work in partnership with the private sector. CRADAs allow Reclamation to partner with, and receive funding and other resources from the private sector and other organizations to jointly develop and commercialize innovations. CRADAs are not an acquisition instrument to procure research services. Contact our Technology Transfer Facilitator, Michael Messaros, at 303-445-2135 for additional assistance. *This section should be less than one half page.*

II. PROPOSED DEPLOYABLE PROJECT OUTPUTS AND SCHEDULE

List the project deployable outputs that you are committing to produce under this proposal and when the outputs would be completed. These are the end products, or the fruits of your proposed research effort that can, when deployed and adopted, contribute to safe, affordable, sustainable and ample water and power supplies. These deployable outputs can include: tools, applications, models, standards, guidelines, operational procedures, etc. The outputs listed in this section are the products of your research that will directly aid Reclamation in accomplishing its mission. Therefore, outputs are considered deployed when they are first put to work by Reclamation end users or stakeholders. A research product is considered in the deployment stage through the first five implementations or utilizations by Reclamation end users or stakeholders. After the first two to five deployments, based on complexity and initial success, the research product is considered adopted and is standard practice. These deployable outputs are the result of research tasks. List the tasks and associated funding request to develop and deploy this output in Section III.

III. PROPOSED TASKS TO PRODUCE THE DEPLOYABLE PROJECT OUTPUTS

For the entire proposed project, list and describe in the table the sequential tasks, task-based funding requests, and the schedule to complete the tasks that are associated with producing the deployable outputs you proposed in Section II.

The tasks should demonstrate a logical step-by-step plan that would be necessary to successfully carry-out the intent of the proposal and produce the deployable outputs you are proposing. Include the cost to manage your project and to report progress. These tasks may include: outreach workshops with end-users, new partnership MOU's, Cooperative Research and Development Agreements (CRADAs), publications, documented findings such as S&T Program Bulletins, other contributions to S&T Program, focus area, or output area goals, etc. For scoping proposals, one task might be a follow-on full proposal and/or an S&T Program Bulletin documenting key findings. Do not forget to take credit for discovering what does not work. Documenting what doesn't work and why are also important research findings that should be shared with others. There are no failures in research. The only failure mode in research is a failure to manage the research effort and a failure to ensure relevancy/involvement with end-users.

The level of detail should be sufficient to demonstrate to a reviewer of this proposal that the principal investigator and team have a solid grasp on the subject matter, and understand the activities and steps that are necessary to be successful. This section will be one of the sections that is used to help identify team qualifications and the chances of success during the proposal review process.

P= Building partnerships and collaborations **R**=Conducting and documenting research **T**=Technology transfer and outreach activities

Identifying if your task is primarily a P, R, or T is necessary as Reclamation and the S&T Program move toward activity-based costing.

IV. FISCAL YEAR FUNDING REQUEST - SUMMARIZED BY FISCAL YEAR AND S&T PROGRAM FUNDING SOURCE

In the table provided, show how the total funding request developed in section III should be divided across

fiscal years, and indicate what S&T funding source(s) you are seeking. Indicate the funding source by entering the dollars requested either under Reclamation-wide S&T Funding, and/or the appropriate Region S&T Funding.

The annual call for S&T Program proposals from the Director of Research is a call for Reclamation-wide as well as region-specific proposals. The call is issued by an all employees Distribution E and then posted on the Science and Technology Program website (<http://www.usbr.gov/research>). Proposals for S&T funding (regardless if it is from funds dedicated to regional priorities or Reclamation-wide priorities) will go through the same level of technical and relevancy peer review. After these reviews are completed, the regional S&T Program coordinators, in consultation with Reclamation's Research Office, select those proposals their region will fund with S&T funds.

Proposals can request co-funding from both Reclamation-wide S&T funding and Regional S&T funding for those projects for which one or two regions are expected to have very high need or interest and where Reclamation-wide benefits can also be construed. Do not check every region and S&T-wide funding; in those circumstances check only Reclamation-wide S&T funding.

Reclamation-wide S&T Funding - Our annual S&T Program budget is approximately \$6 million for Reclamation-wide research projects, or projects that are more overarching and serve a broad need in Reclamation. This may be allocated across any of the R&D³ Output Areas on the S&T Program Research Roadmap in accordance with the strength of proposals received, the steering team priorities, Congressional direction, and Administration priorities and initiatives. Most Bureau-wide proposals will address needs and provide benefits that are common to more than one region.

Regional S&T Funding - To help address specific regional issues or priorities, an additional estimated \$225,000 of S&T Program appropriated funds will be made available to each of Reclamation's five regional offices. The regional S&T funding also provides each region with a vehicle that they can use to help supplement or influence the selection, scope, and schedule of research proposals submitted under the Reclamation-wide S&T funding that are important to their region. Regions can also influence the selection of proposals by showing strong partnership under Section V using non-S&T funding or in-kind services. The regional allocations are managed by each region's S&T Program regional coordinator.

Regional and TSC researchers can submit proposals for regional or Reclamation-wide S&T Program funding. Both are encouraged to work with the appropriate R&D³ Output Champions to facilitate further development of research ideas, create connections between other research proposals, strengthen proposals, broaden communication of needs and capabilities, as well as coordinate/collaborate with subject matter experts in the regional and area offices.

- < MP Region S&T Coordinator: George Matanga
- < LC Region S&T Coordinator: Bill Wiesenborn
- < UC Region S&T Coordinator: Deborah Lawler
- < PN Region S&T Coordinator: Tim Personious
- < GP Region S&T Coordinator: Larry Rossow

Note: Once a multiyear proposal is funded, it will be evaluated each year for the merit of continuation of funding. Accomplishing prior year tasks will be a key consideration. Commitment of funding other than

current year is subject to appropriations.

V. PARTNERS - LEVERAGING OF RESOURCES WITH OTHERS THAT SHOULD HAVE A STAKE IN THE EFFORT

This section is optional. However, leveraging with partners will be a factor in project selection. Especially when other agencies, institutions, or the private sector are also involved in the field (e.g., modeling, fisheries, infrastructure, water quality) or have the lead responsibility in research and/or in implementing solutions or managing the resource issue. S&T Program funding will focus on those resource issues that can impact Reclamation's ability to sustain and deliver our project waters. Having partners is valuable, ensuring you have all the right partners is critical. For example, if you are proposing a project that relates to land management beyond Reclamation's domain, then the right partners would likely include those that have land management responsibilities. Through the S&T Program, Reclamation can bring the lead and responsible implementing agencies and other entities together to collaborate on science-based solutions that will prevent or address impacts to Reclamation project waters, water and power deliveries, and our stakeholders.

If the nature of your proposal does not attract partners, you may want to explain why in the comments section (Section IX). We understand that there are some activities that are only of an interest to Reclamation, or can only be done by Reclamation.

Other partnership considerations:

- < Partners that bring funding or in-kind services. These partners should also be committed to Reclamation's objectives in addition to their own. Hopefully, objectives are the same or similar.
- < Opportunities to learn from others. Partners that bring science and technical expertise and other valued capabilities to Reclamation.
- < Partners that bring private sector resources and Cooperative Research and Development Agreement (CRADAs) opportunities. The Technology Transfer Act of 1986 enables and encourages federal researchers to work cooperatively with the private sector in the research, development, demonstration, or deployment stages in order to more rapidly move federally sponsored innovations to the private sector. This not only helps our national economy, but is also a very effective mechanism to bring private sector resources to collaborate on our needs. In addition, since Reclamation is often not a manufacturing source for our innovations, CRADAs help establish reliable sources to manufacture and service the innovations for Reclamation end-users.
- < Partners that are Reclamation internal and external stakeholders (water managers, water users, other end-users) that have a stake in developing and using the research outputs.
- < Partners are **not** other sources of S&T Program Funds. Regional and Reclamation-wide S&T Program co-funding request should be shown in Section IV. There should not be separate S&T Proposals for the same project. If Reclamation offices are collaborating on an S&T Proposal, there should be only one coordinated proposal submitted. Each office **should not** submit a separate proposal for their share of the work.

Firm is defined as the leveraged funds or in-kind services directly associated with the proposed research

effort that is obligated, committed, or promised and has high likelihood of delivery. We recognize that the commitment or promise of funds may be contingent on successful appropriations by others, or contingent upon a commitment of the S&T Program dollars requested.

Potential is defined as high likelihood of securing the funds or services indicated toward this proposed research effort based on discussions with the partner listed, but no commitment has yet been made. Provide other qualifying statements and considerations in the comment portion of Section IX as appropriate.

Example: If a partner is repairing a dam and has agreed to partner on demonstrating the effectiveness of different concrete repair materials in a specific area of the overall repair effort, do not claim the cost to repair the entire dam as in-kind dollar leveraging. Only count the value of the time and materials contributed to your repair demonstration. In the comments section, you might want to mention the unique window of opportunity this partnership leveraging represents.

VI. Advocates - List Reclamation Managers, Other Stakeholders, and Project Output Beneficiaries That Advocate this Proposed Effort

This section is optional. However, it will be a factor in determining relevancy in the review process. List 5-10 max. Do not list multiple advocates from the same area or field office or same part of a regional office – go for diversity! These should be managers and stakeholders representative of those that can help influence the use of research outputs. The S&T office will ask these people to periodically report on the relevance, use and impact of your research findings; and the effectiveness of your communication and coordination. If they are an informed advocate, we assume that they have been briefed about the objective and scope of your proposal and support your proposed effort. Check the “Been Briefed” box if this is the case.

VII. Location of Field Work and/or Research Beneficiaries

Input this information for research conducted on, or benefitting specific Reclamation project waters, lands, and facilities. The information will be used to provide summary reports of the S& T sponsored activity in their area and to generate a web-based project map with hot links to the research project summaries. Enter N/A for any entry that does not apply. If you choose the option of “not listed” for water or irrigation districts, you can cite the district in the General Comments Section IX.A if you wish.

For river, reservoir, or other Reclamation feature; list the primary feature where your research will be conducted, or the feature that will be the initial beneficiary of your research effort. S&T Program projects typically have broad utility and value across Reclamation; but often the capability is field tested, developed, or targeted for demonstration at a particular Reclamation field feature. Since Reclamation is an end-user organization, the S&T Program focuses on practical, on-the-ground solutions. Reclamation’s field facilities represent a great opportunity and asset toward this focus.

Example: If you are working along the Rio Grande River with the Albuquerque Area Office, enter the “Rio Grande River” as your Reclamation feature. If you are working at Bumping Lake Dam, or on something that will initially benefit or be tested at Bumping Lake Dam, enter “Bumping Lake Dam”. If you are working on Lake Mead, enter “Lake Mead”.

The web-site (<http://geonames.usgs.gov>) can help you find the approximate latitude and longitude of the feature that you selected. If the feature you selected is not one of the features recognized by this USGS data base, choose a nearby feature that is recognized such as a county, post office, etc. The latitude and longitude will be used to generate an on-line map of S&T Program projects so only the general vicinity is sufficient.

VIII. PROJECT TEAM

List Principal Investigator(s) and Team Members

If you have a co-principal investigators, select “PI” for them as well. List the lead PI first. If you do not have actual team members selected at the time you submit your proposal, fill out the fields that you do have information about such as “discipline” and maybe “organization”. You can elaborate on the team and planned team members in Section IX.

IX. COMMENTS

A. General Comments

This section is optional (one page max) - Failure to provide comments will not adversely influence the selection of your proposal. Tells us anything else you would like to about this proposal, add clarifying comments on any of the other sections that you filled out above, or suggest improvements to this form/process.

B. Team Qualifications

This section is optional (one page max) - failure to provide a description of qualifications will not adversely influence the selection of your proposal. Describe the qualifications of the project team to successfully conduct/manage the research and ensure that the research outputs are practical, relevant, and get used by the water managers & water users associated with Reclamation projects. You can include any material you feel appropriate.

X. Annual Progress Report for Ongoing or Completed Research Projects *(Section X guidance is still considered draft)*

Parts of **Section X** will be automatically populated when you submit your proposal based on the information included in your proposal. This may include such fields as: Task Description, Scheduled Completion Date, Task-Based Funding Request, etc. These automatically populated fields will remain locked and cannot be edited. You can click on “Append” to add a new line where you can input or update information or you can click on “Add” to add new tasks or outputs discovered during the course of your research.. This will keep a running record of research progress and will act as a project management tool. The sub-sections can be edited until they are submitted.

A. Progress Report on Proposal Section I.F. - Reclamation and S&T Missions - How are your research outputs contributing toward Reclamation’s mission and the S&T program mission and performance measures? Be clear, concise, and specific. There is space for up to 2000 characters. You can add or edit text

until this section is locked for review. See S&T Program Goals and Performance Measures (www.usbr.gov/research) for guidance on how to quantify the contribution the deployed output makes toward program goals. An on-line benefit calculator is being developed to automate and simplify this quantification effort.

B 1. Progress Report on Proposal Section I.H. - Technology and Knowledge Transfer Plan - Briefly list and describe the outreach activities that you have conducted to help with the deployment and adoption of the results and products of this research project. Be clear, concise, and specific. There is space for up to 2000 characters. You can add or edit text until you submit

B 2. Progress Report on Proposal Section I.H. - Technology and Knowledge Transfer Plan - Which outreach activities listed in **B 1** have you found to be the most successful for achieving deployment and adoption of the results and products of this research project? Be clear, concise, and specific. There is space for up to 1000 characters. You can add or edit text until you submit

C. Progress Report on Proposal Section II - Proposed Deployable Project Outputs and Schedule - In this table you report on the percent complete of deployable outputs. There is also space for comments. As progress continues on your research product you can update the percent complete and comments by clicking on “Append”. Once your research results or product has been successfully deployed you can click on “Deploy” to automatically generate **Section X.D.** Information from **Section X.C.** will be used to create **Section X.D.** If additional deployable outputs have been developed during the course of your research, that were not anticipated in your original proposal, click “Add” to add a line for new deployable outputs. Once you click “Add” you can enter the additional information in the table. The instructions for **Section II** provide definitions of research product deployment and adoption.

D. Contact Information for Users of Deployed Project Outputs - This part of **Section X** will be generated when “Deploy” is clicked in part C -Progress Report on Proposal **Section II** - Proposed Deployable Project Outputs and Schedule. Fill in the name of the person and the organization using, implementing, or benefitting from your research product along with their contact information and comments. Deployable project outputs may be deployed more than once. A count of deployments of any output is shown by the number in the column on the left. See S&T Program Goals and Performance Measures (www.usbr.gov/research) for guidance on how to quantify the contribution the deployed output makes toward program goals. An on-line benefit calculator is being developed to automate and simplify this quantification effort.

E. Progress Report on Proposal Section III - Tasks and Funding - The task description, funding request and scheduled completion date will be auto-populated based on your proposal. You can enter the percent complete in the table. If there is a change in the requested funding, scheduled completion date or the percent complete, you can click on “Append” to add a new line. This way all updates will be included and can be employed as a project management tool. Estimate your progress through the end of the current FY.

F. Progress Report on Proposal Section IV - Revised FY S&T Funding Request and Expenditures Report - The funding requested section will be automatically populated based on your proposal. You can update your funding request with each annual resubmittal of your project, by clicking on “Append” to add a new line. In this new line enter your revised funding request. Use the expenditures section to estimate your expenditures through the end of the current FY and compare this estimate to your original request.

G. Progress Report - Stakeholders Briefed During the Last 12 Months- Involving and communicating

with end-users ensures relevancy, awareness, understanding, and use of your research outputs.

Stakeholders are considered to be Reclamation managers and end-users, and the external water managers and water users served by Reclamation project waters.

List key stakeholders or stakeholder groups that you briefed about any aspect of this S&T Program project. (e.g. your project status, project findings and outputs, potential benefits, etc. Estimate the number if you do not have an accurate count. To help with this report in the future, consider obtaining conference/meeting participant lists or estimating and noting the attendance at the time of the event. E.g., Presentation at NWRA meeting - 50 in attendance; Reclamation O&M conference - 100 in attendance; Briefing for GP region - 6 present; S&T Program Outreach Workshop or Research Exchange Workshop - 80 in attendance.

H. Progress Report: S&T Program Bulletins Completed During Last 12 months - This report shows progress toward S&T Program mission goal of facilitation and use of new science and technology solutions for water in the west. See S&T Bulletin template on: www.usbr.gov/research

Note: This report is not required with FY04 Proposal Submittals at this time. S&T Bulletins are a new S&T Program Performance Measure. Guidance on S&T Bulletins will be available shortly. All FY03 S&T Project teams will be asked to benchmark this measure by the end of FY03/FY04.

I. Progress Report: Partners - Actual Prior Year Resource Leveraging Received - This report shows progress toward S&T Program mission goal of facilitation and use of new science and technology solutions for water in the west. It is a surrogate for measure of the value others place in the outputs and outcomes of the research. Refer to Section V in the proposal. In the Progress Report, only **actual** annual leveraging received (which could be greater than, or less than what was originally forecasted in Section V) is counted. To enter the **actual** dollar value of leverage received from research partners click “Append”. Enter the research partner information, select actual from the pull-down menu, indicate if the leveraging was from inside or outside of Reclamation, select whether the contribution was in-kind-services or cash, and fill in the actual dollar value of the partner contribution.

J. Provide a Brief Summary of Key Findings, Progress, and Changes in Project Direction, or Other Relevant comments (up to 4000 characters)

Key findings should include things you discovered that don’t work as well as those things that do work. Use this section to elaborate on changes in the direction of your project that you did not have opportunity or space to explain in any of the other Section X fields.